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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,904	12/09/2003	Atsushi Miyazaki	8003-1025-1	3291

466 7590 04/26/2007  
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2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER

YEE, DEBORAH

ART UNIT	PAPER NUMBER
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1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/729,904	Applicant(s) MIYAZAKI ET AL.	
	Examiner Deborah Yee	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on February 6, 2007 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US Patent 6,740,174 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 to 55 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 to 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 408120417 (JP'417) cited by applicant in IDS dated May 8, 2006 in view of Fujita et al (US Patent 5,427,634).

5. The English abstract of JP'417 discloses a heat resisting ferritic steel alloy having a composition with constituents whose wt% ranges overlap or closely approximate those recited by claims 1 to 55; such similarities establishes a prima facie case of obviousness because it would be obvious to one of ordinary skill in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art

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teaches the same utility (components for automobile exhaust gas system) and similar properties such as high temperature strength, corrosion resistance and superior workability. See MPEP 2144.05

6. Even though JP'417 alloy teaches 0.1 to 1% W whereas present invention recites >2 to 5.0%, such would not be a patentable difference. Note that the English translation of JP'417 in paragraph 41 discloses adding W to raise high temperature strength but is limited to 1% for economical consideration. Moreover, it is well known in the art to add higher contents of W (e.g. as high as 3%) to further raise high temperature strength in analogous exhaust system ferritic steel alloys, see Fujita, lines 46 to 60 in column 10. In any event, it would be a matter of choice and routine optimization well within the skill of the artisan to add higher levels of W to the JP'417 alloy to achieve no more than the known and expected effect from such an increase, which is higher temperature strength.

7. More specifically, JP'417 discloses alloys 9 and 13 in table 1 that closely meet the claimed composition, and when calculated, satisfy the claimed equation. Although the prior art does not teach the equation claimed, it does disclose that prior art alloys possess the heat resistant properties applicants attribute to the equation. Also it has been held that there is no invention involved in the discovery of a general formula if it covers a composition described in the prior art.

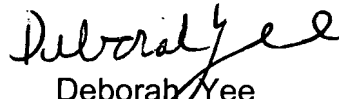
8. Even though the crystal structure having a diffraction intensity and x-ray diffraction limitation as recited by one or more of the dependent claims is not taught by prior art, such property would be expected since composition and process limitations

are closely met, and in absence of proof to the contrary. Note similar to applicants, JP'417 in paragraph 45 produces steel by hot rolling, cold rolling and annealing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-27211253. The examiner can normally be reached on monday-friday 6:00am-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

dy